

**SIDE-POWER**  
Thruster Systems

# PJC-322/321 S-link Control Panel

**GB** Installation and user's manual  
v 1.0.3

Keep this  
manual onboard !



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Made in Norway

# PJC-322 / 321

Control panel with S-link™ CAN-bus connection

## Product features

- For proportional thruster control with the new S-Link controlled Hydraulic Thrusters
- Back-lit LCD display with instant feedback
  - System status
  - Amount of thrust & direction of thrust
  - Oil temperature & pressure
- Interactive multi-language menus
- CAN-Bus communication with thrusters and accessories
- Plug & play cables, waterproof and compact connectors
- Diagnostics via panel
- Connector for external "buzzer"/loud audible alarms

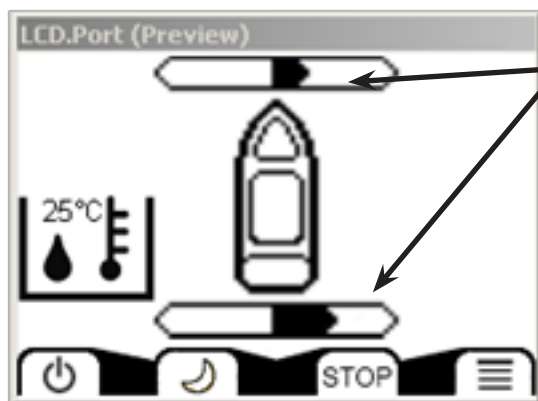


DO NOT connect any other control equipment to the S-link controlled products except Side-Power original S-link products or via a Side-Power supplied interface product made for interfacing with other controls. Any attempt to directly control or at all connect into the S-link control system without the designated and approved interface, will render all warranties and responsibilities for the complete line of Side-Power products connected void and null. If you are interfacing by agreement with Sleipner and through a designated and approved interface, you are still required to also install an original Sidepower control panel to enable efficient troubleshooting if necessary

## DISPLAY IN NORMAL USE:

### 1 hydraulic tank

Oil Temperature

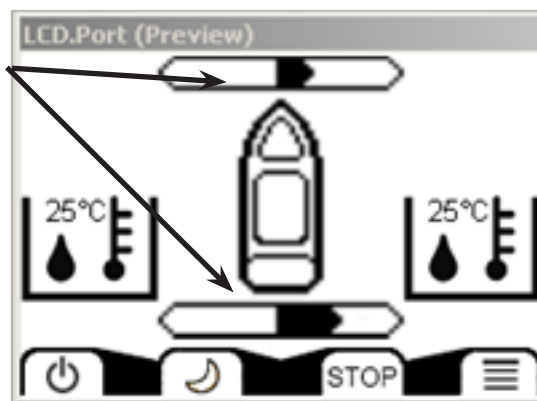


Thrust power and direction

### 2 hydraulic tanks

Oil Temperature,  
Port Tank

Oil Temperature,  
Starboard Tank



Buttons/Indications on screen - left to right:  
ON/OFF - DAYTIME/NIGHT Backlight mode - EMERGENCY STOP - SETTINGS MENU

## DISPLAY WARNINGS & ALARMS:

### FILTER MONITORING WARNINGS (IF SENSORS ARE INSTALLED)

#### PRESSURE FILTER:

Pressure filter symbol (upper right) will blink when filter change is due. In addition red LEDs on both sides of the panel will blink and the external buzzer is activated.

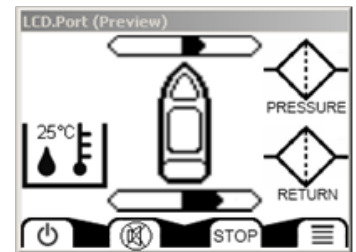
#### RETURN FILTER:

Return filter symbol (lower right) will blink when the filter needs to be replaced. In addition red LEDs on both sides of the panel will blink and the external buzzer is activated.



The external buzzer can be muted by pressing the button under the loud-speaker symbol. Warnings will be reset when the filter are replaced.

The thrusters can be run while the warnings is displayed.  
(Filter warnings will not be shown on systems with two oil tanks)



### ALARMS (Systems with one oil tank)

#### OIL LEVEL:

Oil level symbol (upper left) will blink when oil level is low. In addition red LEDs on both sides of the panel will blink and the external buzzer is activated. The alarm will be reset automatically when the oil level is OK

#### OIL TEMPERATURE:

Oil temperature symbol (lower left) will blink when temperature is above 75°C. In addition red LEDs on both sides of the panel will blink and the external buzzer is activated. The alarm will be reset automatically when temperature goes below 65°C

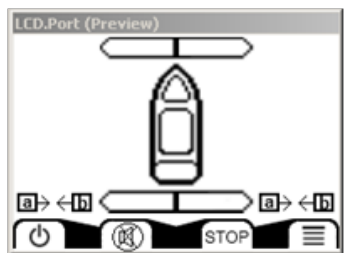
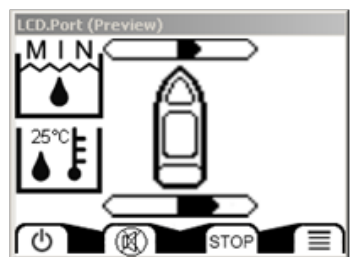
The thrusters can be run when the oil alarms are active.

#### COMMUNICATION ERROR:

If there is a communication error between the panel and the system control unit located on the oil tank, the comm error symbol will be shown on the lower left side of the panel



The external buzzer can be muted by pressing the button under the loud-speaker symbol.



### ALARMS (Systems with two oil tanks)

#### OIL LEVEL:

Oil level symbol (upper left/right) will blink when oil level is low. In addition red LEDs on both sides of the panel will blink and the external buzzer is activated. The alarm will be reset automatically when the oil level is OK

#### OIL TEMPERATURE:

Oil temperature symbol (lower left/right) will blink when temperature is above 75°C. In addition red LEDs on both sides of the panel will blink and the external buzzer is activated. The alarm will be reset automatically when temperature goes below 65°C.

The thrusters can be run when the oil alarms are active.

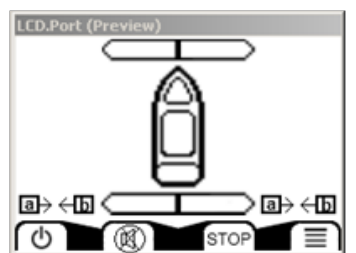
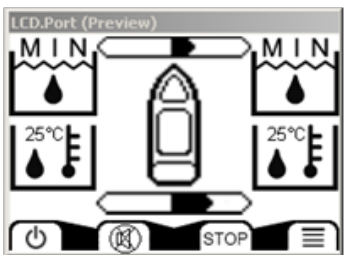
#### COMMUNICATION ERROR:

If there is a communication error between the panel and the system control unit located on the oil tank, the comm error symbol will be shown on the lower left/right side of the panel

Symbols on left side indicates port tank, symbols on right indicates starboard tank.



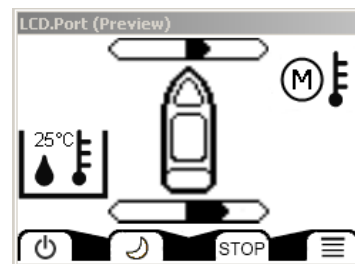
The external buzzer can be muted by pressing the button under the loud-speaker symbol.



## AC MOTOR ALARMS

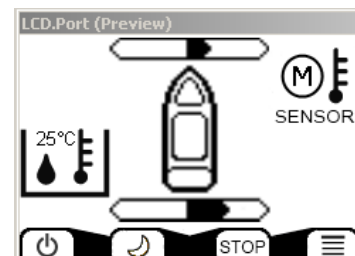
### HYDRAULIC AC MOTOR POWER PACK OVERTEMP:

The overtemp symbol will show in the upper right corner of the display when the AC motor temperature is above 120°C and automatically reset when temperature goes below 110°C.



### HYDRAULIC AC MOTOR POWER PACK TEMP SENSOR:

The AC motor temp sensor fail symbol will show in the upper right corner if the system is set up with a hydraulic AC motor power pack and the sensor has an open circuit.



## EMERGENCY STOP:

When the STOP button is pressed, the hydraulic dump valve will activate and the thrusters will stop. On systems with two oil tanks, dump valves on both tanks will activate and all thrusters will stop.

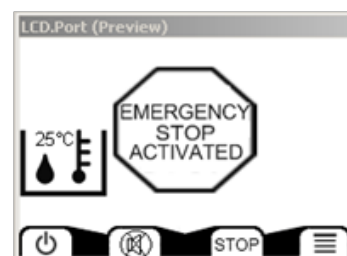
The EMERGENCY STOP ACTIVATED symbol will be shown on the display. In addition red LEDs on both sides of the panel will blink and the external buzzer is activated.

### NB: FOR EMERGENCY STOP ONLY!

Press STOP again to reactivate the hydraulic system.



The external buzzer can be muted by pressing the button under the loud-speaker symbol.



## MENU SYSTEM:

### Access menu system by pressing menu button

#### SETTINGS

The menu system contains of 5 settings:

- 1 - Cooling Pump
- 2 - Pump Settings
- 3 - Language
- 4 - Display Settings
- 5 - Automatic OFF time



Select settings



Exit settings



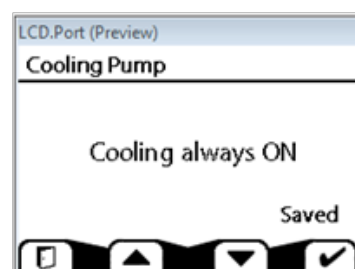
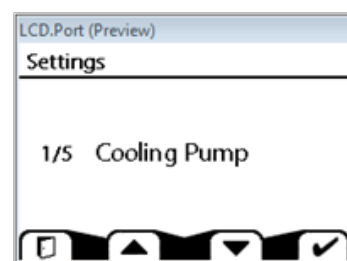
Choose function

#### 1/5 Cooling Pump

The cooling pump can be set to "always ON" or "Automatic".

When the option "Automatic" is selected, the cooling pump will start when oil temperature exceeds 50°C and stop when the oil temperature goes below 40°C.

On systems with two oil tanks, this setting will apply to both tanks.



## 2/5 Pump Settings

Use ▲▼ to choose between Pump 1 or Pump 2 and select by pressing ✓ .  
When a pump is chosen, switch between available settings with ▲▼ .  
Use ✓ to save settings.

PUMP 1 (PTO-mounted): Pump can be set to OFF, ON or AUTO

PUMP 2 (PTO-mounted): Pump can be set to ON or AUTO

When pump 1 is set to auto, the pump is on when any panel is turned on and off when all panels are off. This can be used to control a hydraulic AC motor power pack or electric clutch.

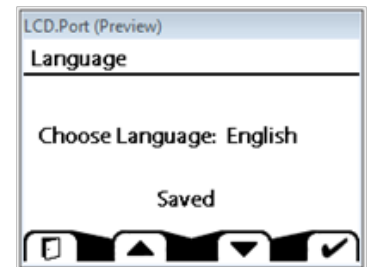
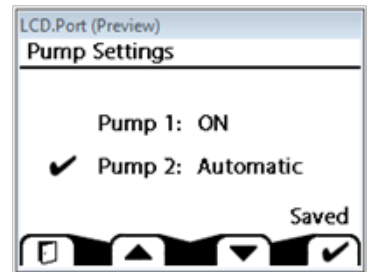
When pump 2 is set to AUTO and an SPS stabilizer is active, the pump will start when oil pressure goes below 80 Bar and run for 15 minutes or when a thruster is running.

When an SPS Stabilizer is not active, Pump 2 will always run. AUTO is used when the SPS stabilizer is installed to save fuel/energy while the stabilizer system is running. On systems with two oil tanks, the settings will apply for both tanks.

**NB: "Pump 2: AUTO" must only be used on PHC 024 with firmware v.1.008 or newer!**

## 3/5 Language

Choose between English, Norwegian, German, French, Spanish or Italian.  
The setting will not affect other panels in the system.



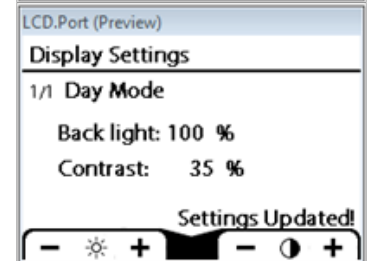
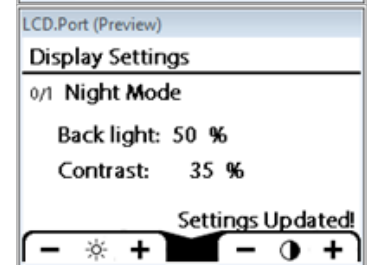
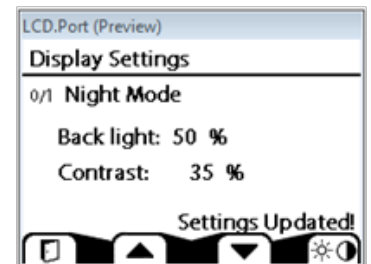
## 4/5 Display settings

Set contrast and backlight level for Daytime/Night modes  
Settings will not affect other panels in the system.

Press ☀🌙 to start adjustment - Press + or - to adjust contrast or backlight.

Use ▲▼ to switch between daytime or night settings.  
Exit setting by pressing [Exit]

Adjustments will automatically end after 3 seconds of inactivity.



## 5/5 Automatic OFF time

Set time from last activity to Panel automatically turns off.  
The time can be set at 5 minutes interval, ranging from 5 to 60 minutes - or be disabled. When "Disabled" is selected, the panel will never be turned off automatically.

Settings will not affect other panels in the system.

Press ▲▼ to adjust time in 5 minutes intervals.

Exit setting by pressing [Exit]

Store settings by pressing ✓



## SERVICE MENU (Systems with one oil tank)

Access **SERVICE MENU** by pressing **MENU** button and hold it for 5 Seconds

Shows oil pressure and temperature in the hydraulic tank as well as the serial number of the panel.

Thrusters can be operated while this display is shown.

Exit Service Menu by pressing 

| LCD.Port (Preview)                                                                  |         |
|-------------------------------------------------------------------------------------|---------|
| Service Menu                                                                        |         |
| Oil Pressure:                                                                       | 115 bar |
| Oil Temp Port:                                                                      | 24 °C   |
| Serial Number: 0001234                                                              |         |
|  |         |

## SERVICE MENU (Systems with two oil tanks)

Shows oil pressure and temperature in both hydraulic tanks as well as the serial number of the panel.

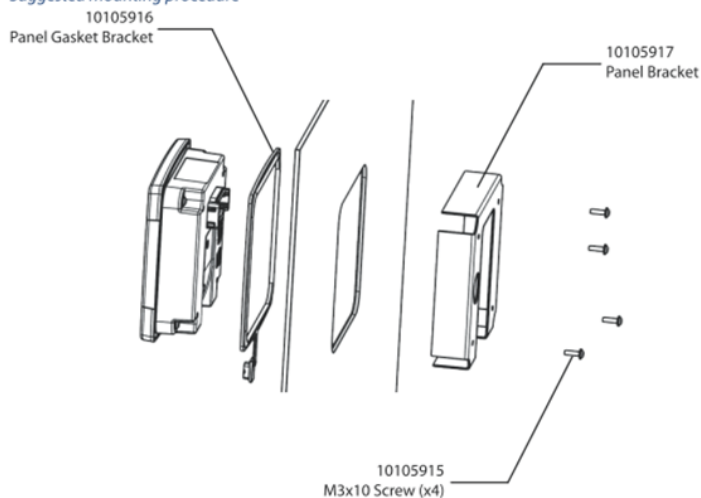
Thrusters can be operated while this display is shown.

Exit Service Menu by pressing 

| LCD.Port (Preview)                                                                  |         |
|-------------------------------------------------------------------------------------|---------|
| Service Menu                                                                        |         |
| Oil Pressure Port:                                                                  | 115 bar |
| Oil Temp Port:                                                                      | 24 °C   |
| Oil Pressure Starboard:                                                             | 109 bar |
| Oil Temp Starboard:                                                                 | 23 °C   |
| Serial Number: 0001234                                                              |         |
|  |         |

### Mounting Installation

#### Suggested mounting procedure



### TECHNICAL SPECIFICATIONS, LCD DISPLAY:

IP 67

Low temp functionality (-40°C)

Mounting bracket

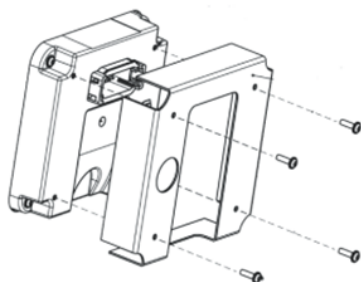
Alarm output max load 200mA

Input voltage 9 - 31V

Max current consumption 110mA

### Fastening Installation

#### Mounting screw placement



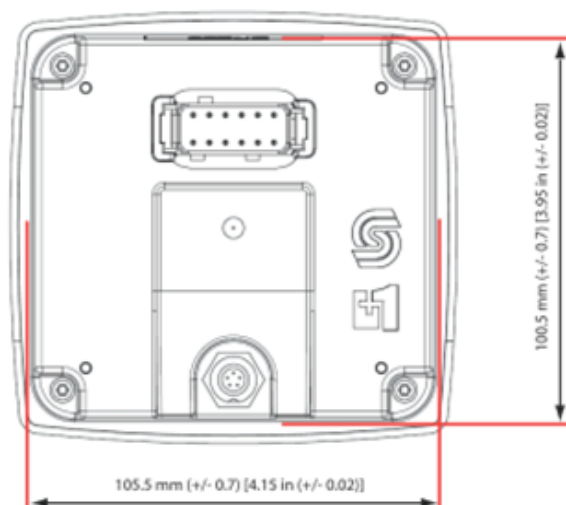
 **Caution:**  
Excessive screw torque force may cause damage to housing.

 **Caution:**  
: Reassembly with self-tapping screws may damage existing threads in housing.

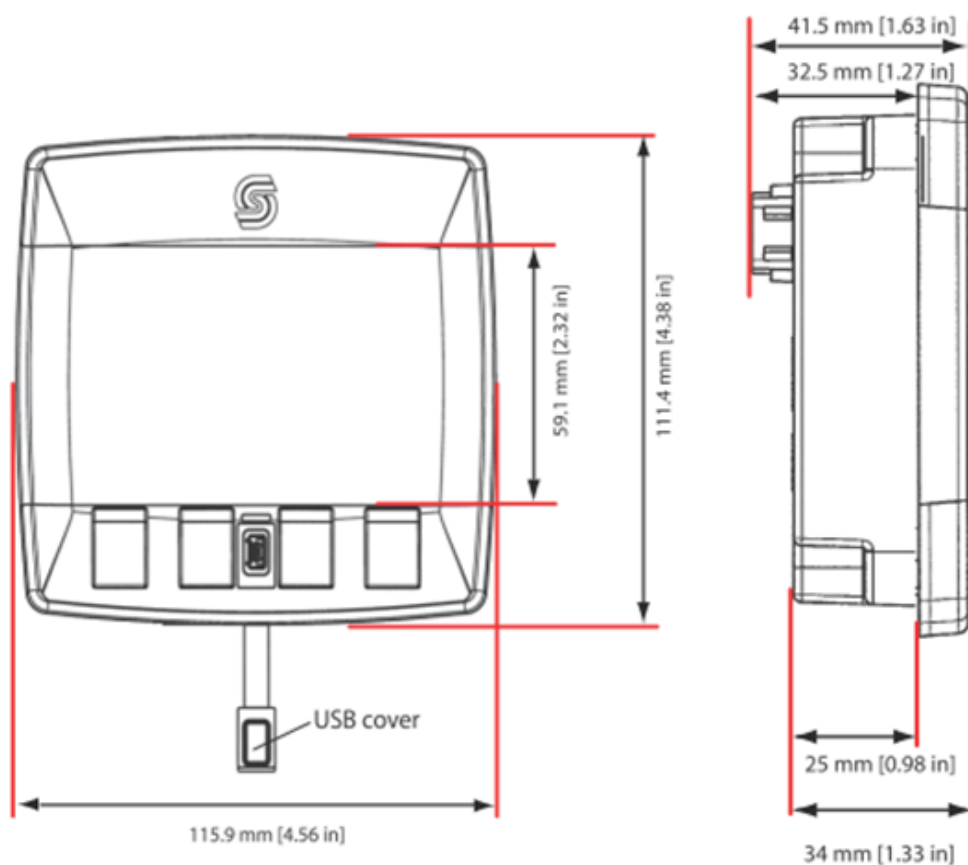
#### Mounting and fastening Installation

- Fastening hole depth: 11 mm
- May be threaded M3 and used with standard screws.
- Maximum torque: 0.9 Nm. Excessive torque force may cause damage to housing.
- Use of non-recommended screws may cause damage to housing

## Panel Dimensions

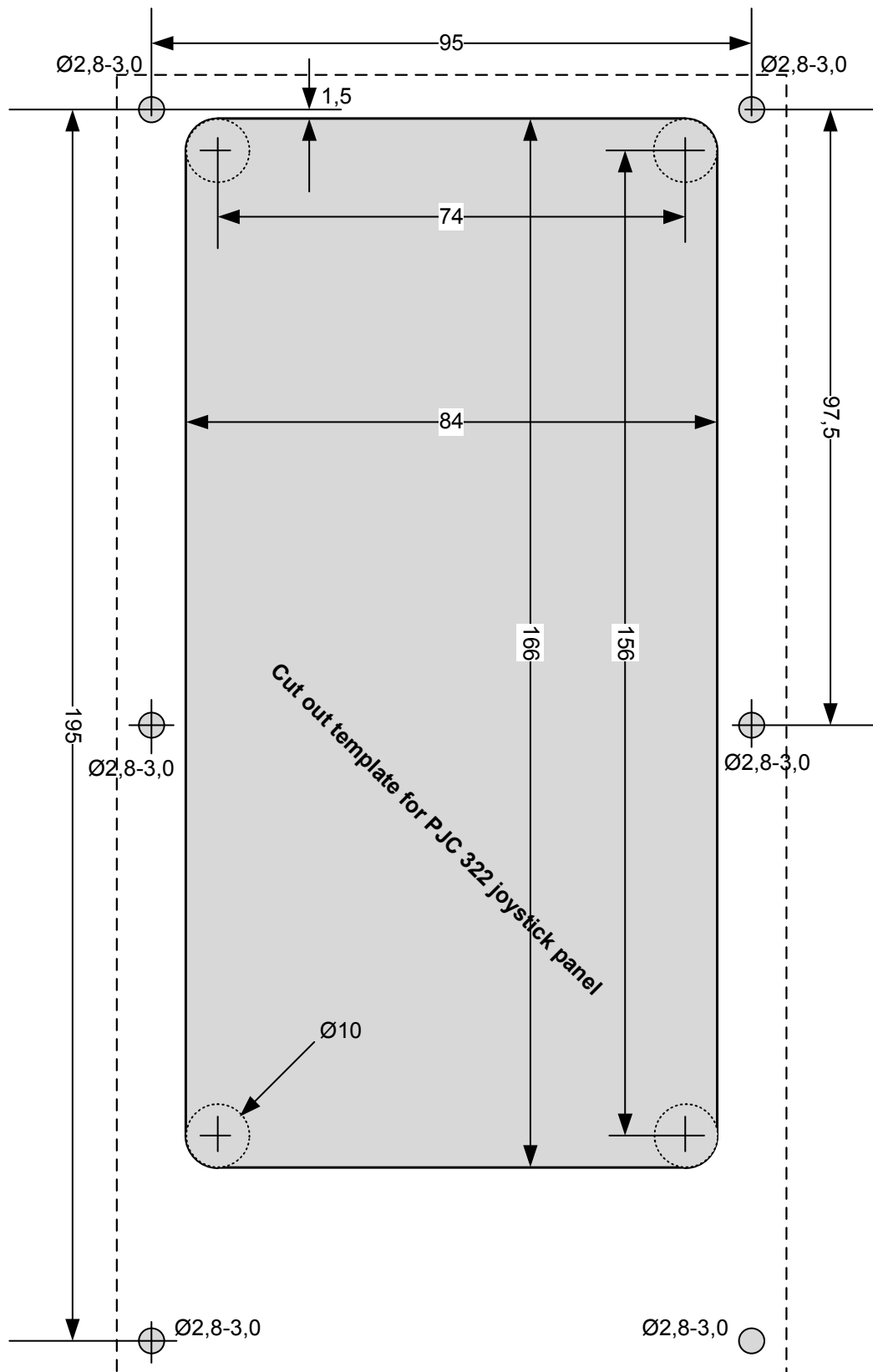


**Caution:**  
Oversized panel cutouts may jeopardize product IP rating.

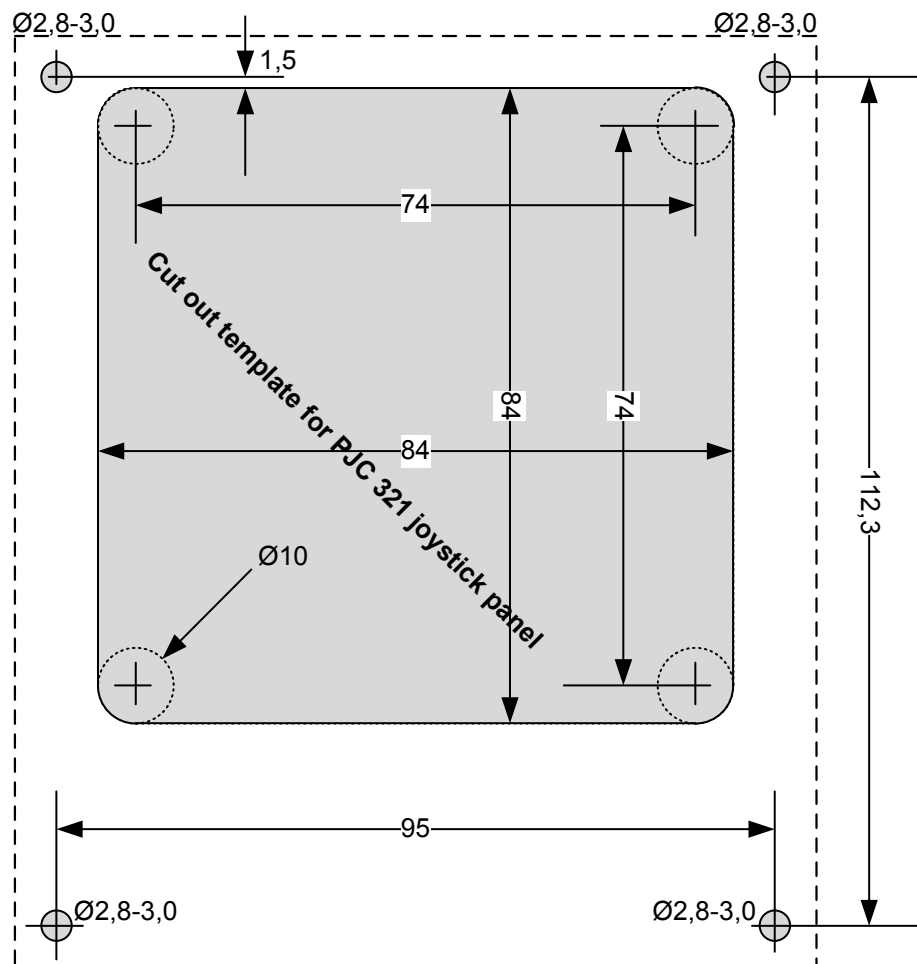


- Gasket seal area crosshatched
- Panel thickness: 2-5 mm

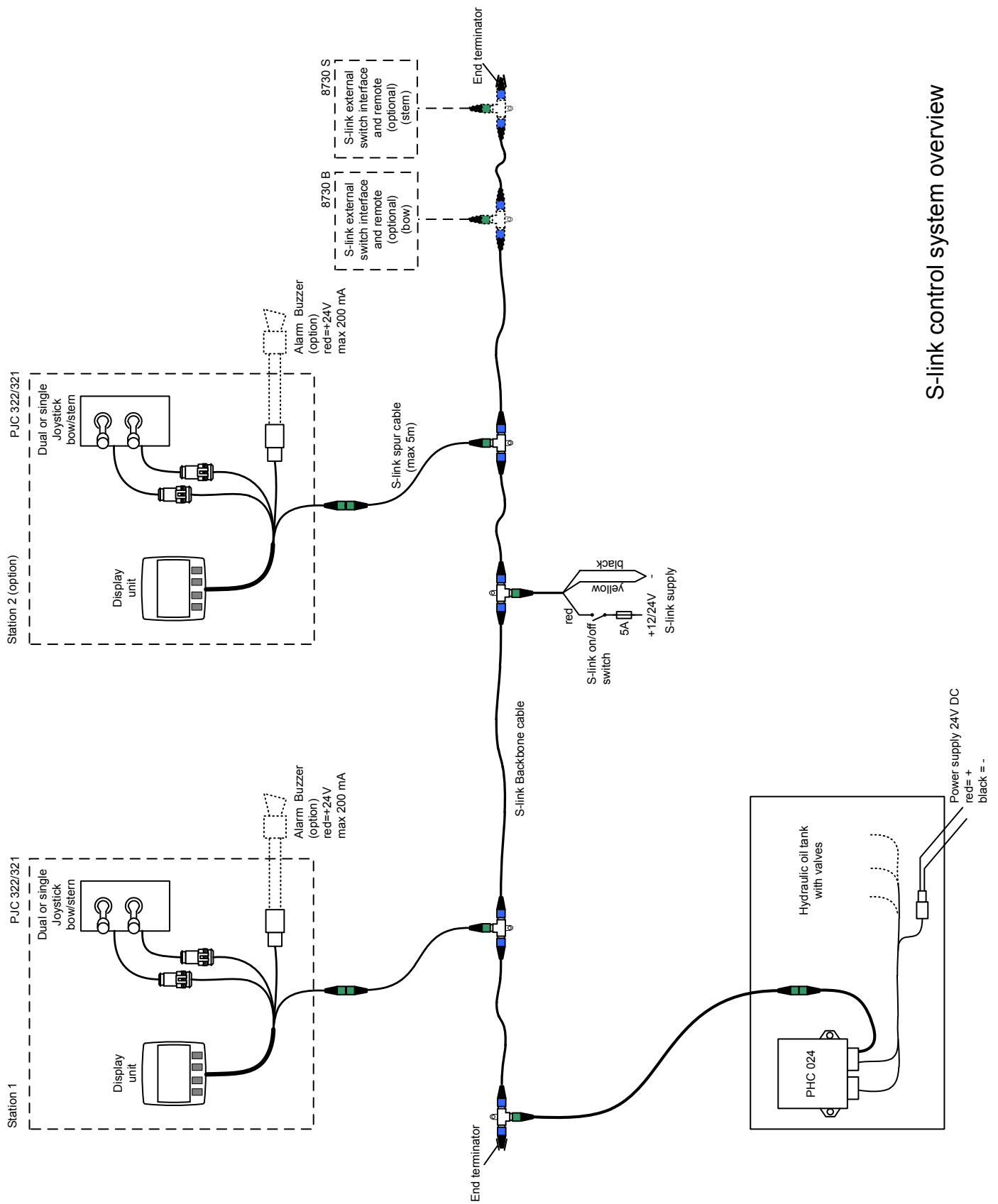
## Panel Dimensions, PJC 322



## Panel Dimensions, PJC 321



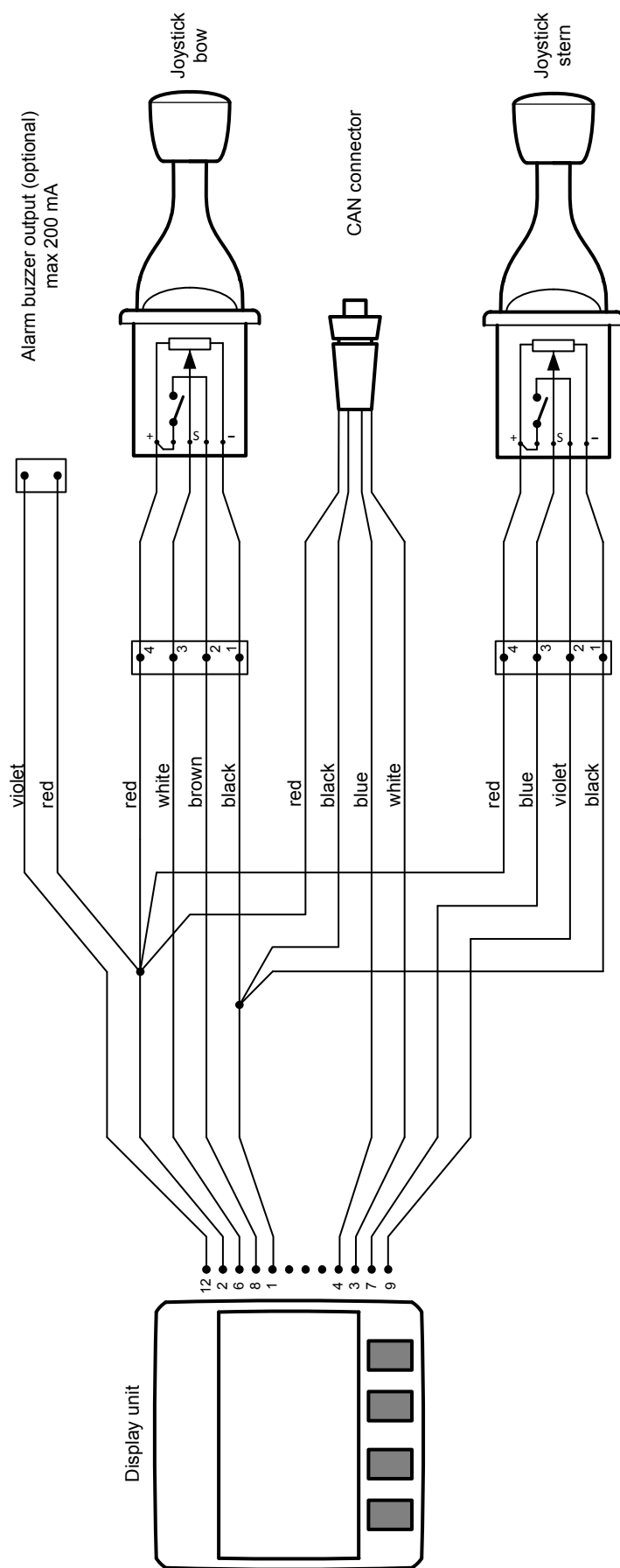
# S-link Overview



S-link control system overview

# Internal Wiring Diagram, PJC 322/321

PJC 322 Internal wiring.  
(PJC 321 has no joystick stern)



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